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# YOSEMITE NATURE NOTES

VOLUME XXXII · NUMBER 8 AUGUST 1953

*Half Dome and Riding Party at Merced River, Yosemite Valley*
*—Ansel Adams*

*Hubba*

Left to right—Bottom row: Warne, Lindsay, Ronsheim, Bohrer. Middle row: Bainbridge, Hillerby Wentz, Ramstad, Zachwieja. Top row: Burns, Tomko, Sundstrom, Shurbert, Pennock.

## ROSTER OF THE 1953 YOSEMITE FIELD SCHOOL

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Editor's Note: This issue of *Yosemite Nature Notes* has been prepared by the 1953 class of th Yosemite Field School.

**Cover:** Half Dome and Riding Party at Merced River, Yosemite Valley, by Ansel Adams.

# Yosemite Nature Notes

THE MONTHLY PUBLICATION OF
THE YOSEMITE NATURALIST DIVISION AND
THE YOSEMITE NATURAL HISTORY ASSOCIATION, INC.



VOL. XXXII AUGUST 1953 NO. 8



## HIGHLIGHTS AND IMPRESSIONS OF THE 1953 FIELD SCHOOL

**By Richard C. Burns, Field School, 1953**

It doesn't seem possible that two supposedly long months could pass so quickly, but such was the case, and the 1953 class of the Yosemite Field School has now become a part of the history and tradition of a school that began 28 years ago. It was in June 1925 that Dr. Harold C. Bryant founded what was then known as the Yosemite School of Field Natural History.

Since the early days, when the first students entered the school, until the close of the 17th session in 1941, much of the curriculum and many of the objectives were centered upon field research in natural history. The work accomplished by those pioneer Field Schoolers has proved to be of real value, for they contributed a large amount of new scientific knowledge, much of which is now a part of the interpretive program of Yosemite and other national parks.

During the war years the Field School was discontinued; however, upon its resumption in 1948, the emphasis shifted from research to the practical aspects of the fundamental job of the park naturalist—that of interpreting to the public, in easy-to-understand language, the natural and human history of the area concerned.

This school has consistently pioneered in the latest methods and procedures of interpretation. Here in Yosemite National Park the out-of-doors becomes the classroom and laboratory. Today, the Yosemite Field School is the only one of its kind administered by the National Park Service.

This year's class was made up of students from California, Ohio, Indiana, Michigan, Tennessee, Illinois, and Nevada. Teachers, students, a social worker, a salesman, a recreation supervisor, and two National Park Service employees were present.

It would not be possible in this short account to record all of the many incidents and events our class experienced during those two months. Nevertheless, I hope the following notes from my "Yosemite diary" will disclose a few of the highlights and impressions of the 1953 Field School.

*June 28:* At our first campfire program we met the staff, a few former Field Schoolers, and each other. We also learned that we might soon acquire nicknames other than our present ones. Everyone was excited in anticipation of the new and interesting events that lay ahead.

*June 29:* We toured the Yosemite Museum and each of us was assigned a desk of his own in the research room. Then came our introduction to Yosemite geology and the fascinating story of the formation of Yosemite Valley. On a visit to Mirror Lake we learned about glacial polish and glaciers. Near El Portal, rocks over 200 million years old were studied, while violet-green swallows flew overhead. From the Wawona Tunnel several saw for the first time that famous view of Yosemite Valley.

*June 30:* Today's survey of Yosemite botany included everything from plant collecting and preparation to stamens, pistils, life zones, and floristic relationships; staghorn lichens, digger pines, monkeyflowers, cowparsnips, manzanitas, and lady ferns. By the end of the day many new botanical words were learned, and 44 different plants observed. That evening a social get-together produced good fellowship and fine singing. Yosemite is wonderful.

*July 1-2:* Library cataloging, accessioning, and filing; museology, techniques, prospectus, and exhibits; along with a survey of Yosemite fishes, amphibians, reptiles, birds, and mammals. That evening, a campfire session on methods of backpacking in the high Sierra inspired some interesting discussions.

*July 8:* From Glacier Point, after a hearty breakfast, we started our hike to Yosemite Valley via the Pohono Trail. Red fir, white fir, Jeffrey pine, Sierra forget-me-not, huckleberry oak, and many other interesting plants occupied our attention during the first few miles. A lightning fire was observed; heart rot in red firs was explained; and a peculiar odor turned out to be the benzoin on one of the hiker's feet. A rare view of the coastal ranges far off to the west, two coralroot orchids, pine violets, pussypaws, corn lilies, green gentians, and lady ferns, many birds including Oregon juncos, Sierra creepers, and mountain chickadees, and the fissures at Taft Point were a few of the countless observations prior to our lunch stop at Bridalveil Creek. At Dewey, Crocker, and Inspiration Points, there were magnificent views of Yosemite Valley. Always there was a constant procession of new birds and plants interspersed along the trail. The display of snowplants was particularly outstanding. Our final tally recorded over 45 different kinds of plants observed and 17 kinds of birds, including the booming of the Sierra grouse.

*July 9:* Chief Naturalist John Doerr gave us a highly inspirational talk on the National Park Service—its ideals, objectives, and current problems. He said, "The remnants of the original wilderness that made America are so small that we are justified in trying to save them."

*July 10:* On an all-day trip to the Mariposa Grove of giant sequoias, we visited Yosemite's largest trees. Many of these giants have paralleled the recorded history of mankind for the past 4,000 years. Forestry problems and methods were also discussed.

*July 15-24:* Junior Nature School began, along with nature walks, public speaking, museum duty, library techniques, and visual-aids instruction.

*July 27:* At last! Off on our high-Sierra trip! We hiked up the Yosemite Falls Trail and had lunch beside a quiet section of Yosemite Creek. About 4:30 p.m. we arrived at Porcupine Creek Campground in high spirits. Group IV was in charge of the evening campfire program.

*July 29:* A large crowd turned out for the public auto caravan to Mono Lake and the Mono Craters east of the park. An excellent wildflower display along the way included: Sulphur flower, Labrador tea, polemonium, Nuttall linanthus, fireweed, monkeyflower, lupine, thistle poppy, and many others. A few of us went swimming in Mono Lake, and nearly everyone returned with specimens of obsidian from Mono Craters.

*July 30:* During an afternoon off, a hike to Elizabeth Lake fit in perfectly. The mosquitoes were bad, but the beautiful setting of the lake, lazy clouds overhead, and the fine display of paintbrush, buttercups, and monkeyflowers completely blotted out any minor disturbances from pesky mosquitoes.

*July 31:* A hike to the top of the highest of the Echo Peaks from Tuolumne Meadows was a complete success. The park's finest colony of red and white heather was especially rewarding. We returned by way of the eroded joint planes above Budd Lake—like great slits running through the granite ridge.

*August 4:* There were flapjacks for breakfast—as many as we could eat—before starting out on the day's exploration of the Lyell Basin beneath Mt. Lyell. The weather was perfect, and each turn in the trail brought new lakes and mountains into view. Lunch was along the shores of beautiful Upper Marie Lake. We saw work of vanished glaciers.

*August 5:* We climbed Mt. Lyell and explored the Lyell Glacier. The bergschrund wasn't too frightening, rosy finches proved excellent hosts, and the blossoms of the hearty sky pilot revealed both beauty and rugged adaptability to Yosemite's mightiest peak.

*August 6-7:* On our backpacking trip cross-country to Tuolumne Meadows, we camped for the night beside Ireland Lake. Several tried their luck at fishing with good results. At the close of day we relaxed around a roaring campfire and sang a few songs after several members of the group gave talks on other national parks. The time was passing much too quickly.

*August 13-19:* Back at Yosemite Valley, and only 2 weeks remained. Now we actually participated in the Yosemite Valley naturalist program by taking over the nature walks, museum duty, geology talks, reptile talks, Indian demonstrations, Camp 14 evening campfire programs, and by preparing articles for *Yosemite Nature Notes*. These were some of our busiest days, and they proved to be both revealing and rewarding.

*August 24:* Colored slides taken by members of the Field School during the summer were shown at our final campfire.

The park naturalist and his staff of permanent and seasonal naturalists have been most helpful and understanding; they have given freely of their time and efforts in order that we might gain the maximum benefits from our Field School experience. To them we express our deepest thanks and appreciation. Our many associations together during the past two months have been more than enjoyable. The classroom sessions, hikes, campfires, songfests, slide shows, high-Sierra trip, and the many other activities will not soon be forgotten.

Finally to fellow classmates, our excellent staff, and to Yosemite National Park, I can only say, "Auf Wiedersehen" — it will never be farewell.

## BEAR TREES

**By David D. Sundstrom, Field School, 1953**

In various places throughout Yosemite National Park, as well as in other parts of the United States and Canada, many examples of bear signs may be seen, and of these the bear trees are of extreme interest. The main reason for this interest is that no observer has been recorded as knowing the real purpose or purposes for such trees, although many theories have been suggested.

Bear trees are those whose trunks exhibit claw marks; these are usually long, deep, and vertical, but occasionally may be diagonal or horizontal. Both the American black bear *(Ursus americanus)* and the grizzly bear *(Ursus horribilis)* have been observed to use these trees, but most of the information herein has been gleaned from references on the black bear, the only species now occurring in California.

In Yosemite the trees commonly used by bears are quaking aspens, incense-cedars, ponderosa pines, and lodgepole pines. Aspens are particularly conspicuous as bear trees, due to their whitish bark. When a bear makes its marks on an aspen, they are destined to remain visible for the life of the tree. Furthermore, it sometimes happens that these scars are covered over by the tree's growth and are thus accentuated as prolonged warts or protuberances which are raised from the trunk surface as much as 1¼ inches. They are also black in color. The marks on other trees usually show the colors of the inner bark, and frequently of the sap.

Bear trees are often found along paths that are definitely established as bear trails. These trails can be recognized by a pattern of worn patches or depressions on the ground, placed as a single bear would make its footprints while walking along. Other bears subsequently moving in the same direction invariably use this same trail, and in doing so they place their feet in the very same patches or holes made by the previous bears. Their trails can be further identified by the prevalence of droppings or scats.

Various people have seen bears approach a tree, stand erect on their hind legs to embrace it, and then by reaching with one foreleg as high as possible rake the claws down the trunk several inches. Also, some bears have been observed to bite ferociously huge chunks out of the trunk. These performances are usually made by male bears, but females also have been seen using the trees in this way. Sometimes bears rub various parts of their anatomies against the trees, such as their backs, noses, chins, and the like, as if trying to rid themselves of some irritating object. Frequently this clawing and biting is accompanied by growls and other vocal noises. One observer has stated that he found most bear trees to be near springs and bear wallows.

Numerous theories have been presented to explain why bears use trees as described. Probably the most accepted idea is that the trees are a type of "social register." As this theory goes, a bear enters an area over one of the established bear trails, approaches the bear tree, rises up on his hind legs, and makes his marks with one paw. Sometimes both paws are used in this way, and, as previously stated, not infrequently the bear also takes out chunks of the

trunk with his mouth. The bear then apparently finds out which of the marks already on the trunk are the highest. If his are lower than any of the others, he assumes that a larger bear is in the territory and is the boss of this domain. Our bear then moves on to new stamping grounds. On the other hand, if his claw marks are the highest on the trunk, he can stay here, probably able to stand up against any other bear inhabiting the area. It should be mentioned, however, that one observer has stated that there is nothing definite to corroborate the proposition that bear trees are "social registers."

Another solution has been suggested, explaining that a bear uses these trees merely to exercise its muscles after performing some physical endeavor. Of somewhat different significance is the belief that the trees serve as a place where the bears can clean and sharpen their claws. In Sequoia National Park there is a large sequoia which is known as the "Bear's Manicure."

The famous naturalist Ernest T. Seton has expressed his opinion that the trees are used as "bear signboards," and are methods of conveying certain kinds of information among bears, much the same as the urinary signal posts of the dogs, wolves, and coyotes. Seton goes on to say that since the bear is equipped with an acute sense of smell, it would have little difficulty in determining some pertinent facts about the bear tree's previous user, such as its sex, species, whether it was friend or foe, and the like. Many observers agree with this idea.

Some authorities have another concept. Just as two men might be enemies and one might have the impulse to wreak havoc and treat contemptuously the mark of the other, so this could be the same with bears. Moreover, it might even be part of the answer to the damage perpetrated by bears to the official trail signs in Yosemite National Park, as an indication of the bears' possible hate of man.

Some bears have been seen to bite trees to eat the inner cambium layer which is sweet and edible, and which bears apparently relish.

Every one of us at one time or another has had a fit of temper, and just had to "blow off steam." Some of us accomplish this by brutally kicking a chair and others by "cussing a blue streak." Perhaps bears are similar to humans in this respect, and have frequent fits of rage. They may then take it out on a bear tree. One researcher has stated that some bears were seen to foam at the mouth while working on a bear tree, and this foaming could very well be an indication of extreme chagrin.

It should be clearly understood that all of the above are merely theories, with possibly some or all or none of them being true. There are naturalists in many parts of our nation who are engaged in mammal research. We sincerely hope that someday the true purpose or purposes for bear trees will be known.

## CAMPFIRE THOUGHTS

**By Robert J. Ramstad, Field School, 1953**

With the approach of evening, the appeal of a warm glowing fire and the pungent aroma of wood smoke has attracted many a Yosemite guest to the community campfire. Here, amid the inspiring surroundings of lakes and streams in their various moods, lofty trees, and towering cliffs, the visitor may sense the true feeling of comradeship with his fellow man and gain a closer kinship with Nature. The public campfire satisfies a growing need as can be witnessed by the ever-increasing attendance and participation in these programs wherever they may be given.

A variety of evening programs are conducted in Yosemite National Park during the summer season by the naturalist staff of the National Park Service. Regular nightly public campfires were begun in Yosemite Valley at Camps 7 and 14 in the summer of 1929 at the request of Colonel C. G. Thomson, then park superintendent, and they have continued as a seasonal feature in one or both camps since that date. Even in that early year, the relationship between the natural history of Yosemite and the famous firefall from Glacier Point was considered, for the campfire sites were selected so as to be in full view of this cliff. Today, with the refinements and developments gained through a quarter century of experience, evening programs continue to be held in these two campgrounds, and still the timing of these activities is largely controlled by the exact instant the glowing embers of red fir bark are shoved over the precipice.

Many feel that an artificial limiting factor has been imposed on the campfire program by its relationship to the firefall. Split-second timing of the program is frequently a necessity and perhaps overshadows the thought the naturalist hopes to convey. It is quite likely, however, that the subject of natural history, as presented at these campfires, does reach more park visitors who might otherwise miss it, when they are aware that they will see the firefall by attending the programs.

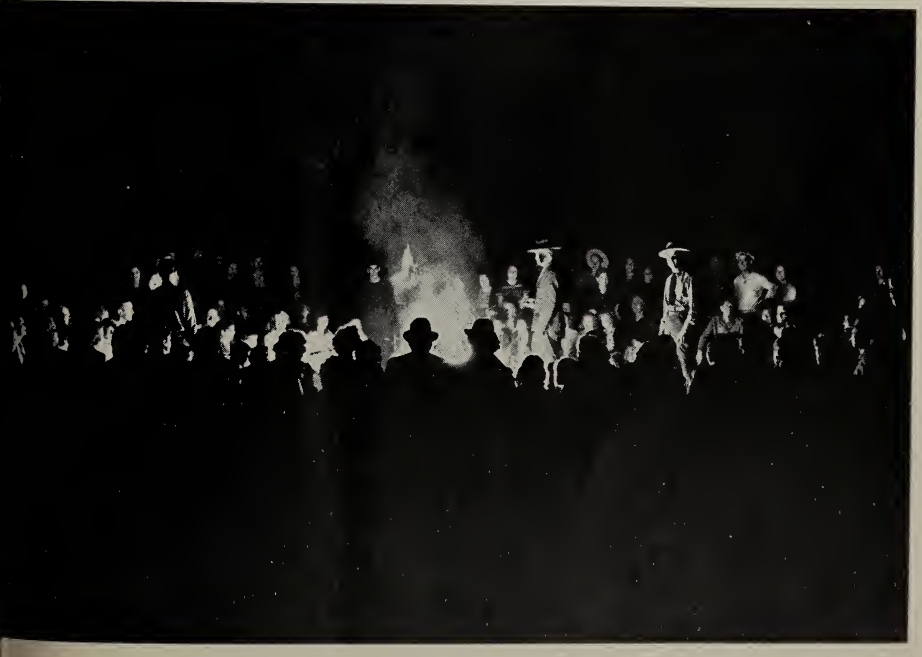
Visitors to the outlying areas of Yosemite do not miss the joys of campfire activities, for naturalist programs are available under the ageless sequoias of the Mariposa Grove, upon the brink of Glacier Point, and in the shadow of Yosemite's highest summits at Tuolumne Meadows. Each of these sites offers its own grandeur and inspiration, and each has its own specialized allure. These outlying areas are free from the mechanics of slide projectors and amplifiers as electricity is not a part of the program. The naturalist must rely upon his own personality and resources, and he is not rigidly controlled by the sweep hand on his watch ticking off the seconds until firefall.

Tuolumne Meadows actually seems to be in a category by itself, as there is a fraternity among the guests that is not as strongly shown elsewhere. The meadows are peopled by many who are "repeaters"--persons who return year after year to renew friendships with Nature and with each other. This is a meeting of

folks from all walks of life, yet through it all runs that thread of common interest and pleasure—the love of wilderness. This attitude must be contagious, for it is reflected at the campfire by a friendliness and informality that are not so evident on the floor of Yosemite Valley where many of the guests are unable to be in the park sufficiently long to gain that feeling of fraternity.

Perhaps the Tuolumne Meadowites have lost more inhibitions than at the other areas, for at the campfire they seem dearly to enjoy the opportunity to join, full-lunged, in the community singing. Their Yosemite Valley counterparts, sensing a more formal atmosphere, seem more hesitant to voice their feelings in song. Evidently the tensions and restraints imposed by urban living are more easily relaxed by the greater feeling of freedom of the outlying areas.

Regardless of all elaborate-sounding explanations given for this variation in campfire attitudes, it cannot be overemphasized that the success of a program is attributed largely to the personality of the leader. Such a person need not have a voice suitable for audition by the Metropolitan Opera Association, nor talents that would lead him toward an Academy Award "Oscar," but he must have the spirit and enthusiasm that will capture and hold his audience. It is fortunate that men meeting these needs have been available in Yosemite. Without question, the thousands upon thousands of persons visiting this park each year are able to return to their respective businesses and duties as individuals more relaxed and refreshed than before their mountain experiences. If, in addition, the campfire activities can impart certain bits of information that will be retained and provide a better understanding and appreciation of the wilderness picture, the campfires have been a great success.



## EXPERIMENTING WITH A CORAL KING SNAKE

**By Charles M. Wentz, Field School, 1953**

Often had I wondered how much memory a snake has or how much reasoning power he possesses. The long-standing question was emphasized one June day while my friend and I stopped along the road to rest and to eat our lunch.

We were sitting a short distance back from the road enjoying the wonderful scenery of Yosemite Valley opposite El Capitan, when we heard a disturbed mountain quail which seemed to be begging for help. She might even accept ours.

Upon investigation we found a coral king snake invading the quail's nest in which were three eggs. We captured the snake and took him about 50 yards down the road and much below the road level. Then turning the snake loose, we were amazed to see him rapidly traveling right back to the quail's nest.

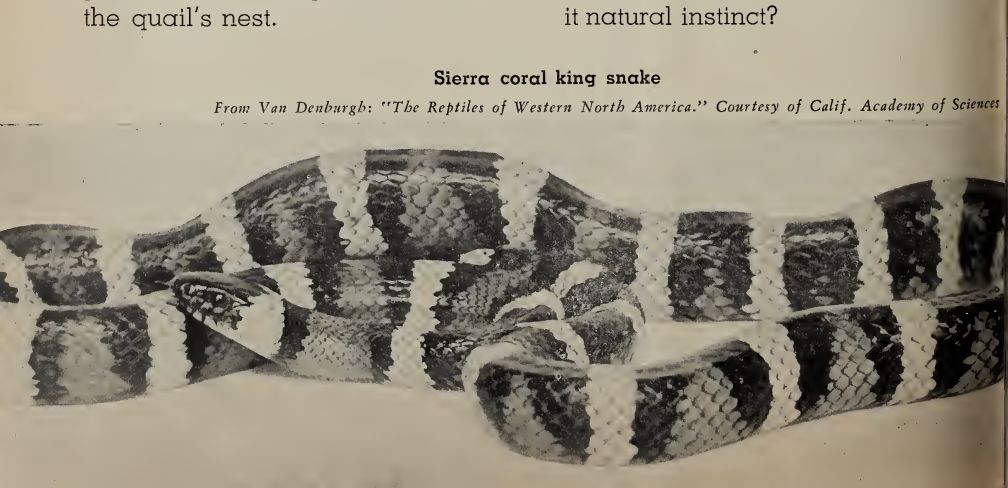
After reaching the nest again, the snake prepared to devour one of the eggs. Before he succeeded in doing this we recaptured him and this time carried him three times as far down the road and placed him at the river's edge. Immediately the snake crawled up the bank, and despite the fact that we from time to time diverted his path and tried to head him in another direction, he persisted in attempting to return to the quail's nest.

We were as determined that he should not have the eggs as he was determined to have them. The third time we decided that his journey should be a long one and what we thought would be an impossible trek, so we carried him at least one-fourth of a mile down the road and then up the mountainside to approximately 100 feet higher elevation and turned him loose. To our utter consternation and disgust he again headed down the mountainside! However, this did not mean that he necessarily would go toward the quail's nest when he reached the lower elevation or road. Only time would tell. While his route this time was not as direct as the previous ones, he eventually reached the quail's nest. Because of his perseverance we felt he had earned the dinner of eggs and therefore we did not prevent him from partaking of the feast a-la-scramble. We left him at this point as we had no desire to torment him further, but we did feel sorry for dame quail as we had failed her completely. After all, such dramas occur commonly in nature anyway, usually unobserved by people.

Now should I conclude that the snake is capable of thinking, or does he have just a simple memory, or is it natural instinct?

**Sierra coral king snake**

*From Van Denburgh: "The Reptiles of Western North America." Courtesy of Calif. Academy of Sciences*



## TRAILS INTO WILDERNESS

**By Lewis A. Pennock, Field School, 1953**

Trails into wilderness have a peculiar habit of kidnapping people as they walk alone. It happens only occasionally, and one never knows when to expect it. The person is carried to a far-off point where he can look down on the tiny person on earth called himself and get a new perspective on his activities and the world about him.

I used to question the power of this kidnapper, but then I met Hank. Hank was working on a bark-beetle survey near one of our national parks. He looked as though he had stepped out of a "tough-but-oh-so-gentle" ad, but the gentleness appeared to have been left out of his character. He was the only one of our group who failed to express appreciation for the beautiful country in which we were working, and he remained apart from the others. One day Hank didn't come back from his survey line, and by nightfall we had visions of his lying beneath a cliff with a broken leg. Our only ray of hope was the thought that he might have encountered the sheepherder's daughter we'd seen through the fieldglasses the previous day.

Several hours after dark, Hank walked into camp and we all opened our mouths to ask what had happened. One withering glance silenced us and we never had the nerve to ask again. For some unknown reason he decided to tell me about it several weeks later. In the middle of the day he had come across a small subalpine meadow filled with Indian paintbrush, lined with symmetrical fir and spruce, and covered with blue sky boiling with cumulus clouds. As Hank put it, "It made me sit down and think, and before I knew it, it was dark."

Seeing the ease with which Hank was whisked away I now believe that no one has the power to resist this kidnapper — the trails into wilderness.

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*—Ansel Adams*